# FACT SHEET

The United States Environmental Protection Agency (EPA)
Plans To Issue A
National Pollutant Discharge Elimination System (NPDES) Permit To:

Cabinet Gorge Power Station
P.O. Box 160
Clark Fork, Idaho 83811

Permit Number: ID-002799-5
Public Notice date:

**EPA Proposes NPDES Permit Issuance.**
EPA proposes to issue an NPDES permit to the Avista Corporation. The draft permit places conditions on the discharge of pollutants from a wastewater treatment plant at the Cabinet Gorge Power Station to the Clark Fork River. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged.

This Fact Sheet includes:
- information on public comment, public hearing, and appeal procedures
- a description of the current discharge and current sewage sludge (biosolids) practices
- a listing proposed effluent limitations, schedules of compliance, and other conditions
- a map and description of the discharge location
- technical material supporting the conditions in the permit

**The State of Idaho Proposes Certification.**
EPA is requesting that the Idaho Department of Environmental Quality certify the NPDES permit for the Cabinet Gorge Power Station under section 401 of the Clean Water Act. The State provided preliminary comments on the draft permit, and these comments have been incorporated into the draft permit.

**Public Comment.**
Persons wishing to comment on or request a Public Hearing for the draft permit may do so in writing by the expiration date of the Public Notice. A request for a Public Hearing must State the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to EPA as described in the Public Comments Section of the attached Public Notice.

After the Public Notice expires, and all comments have been considered, EPA's regional Director for the Office of Water will make a final decision regarding permit issuance.

Persons wishing to comment on State Certification should submit written comments by the Public Notice expiration date to the Idaho Department of Environmental Quality (IDEQ) at Coeur d'Alene Regional Office, 2110 Ironwood Parkway, Coeur d'Alene, Idaho 83814.

If no substantive comments are received, the tentative conditions in the draft permit will become final, and the permit will become effective upon issuance. If comments are received, EPA will address the comments and issue the permit. The permit will become effective 30 days after the issuance date, unless a request for an evidentiary hearing is submitted within 30 days.

**Documents are Available for Review.**

The draft NPDES permit and related documents can be reviewed or obtained by visiting or contacting EPA's Regional Office in Seattle between 8:30 a.m. and 4:00 p.m., Monday through Friday (See address below). Draft permits, Fact Sheets, and other information can also be found by visiting the Region 10 website at www.epa.gov/r10earth/offices/water/npdes.htm.

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, OW-130
Seattle, Washington 98101
(206) 553-0523 or
1-800-424-4372 (within Alaska, Idaho, Oregon and Washington)

The Fact Sheet and draft permit are also available at:

EPA Idaho Operations Office
1435 North Orchard Street
Boise, Idaho 83706
(208) 378-5746

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## I. APPLICANT

Cabinet Gorge Power Station
NPDES Permit No.: ID-002799-5

Facility Mailing Address:
P.O. Box 160
Clark Fork, Idaho 83811

## II. FACILITY INFORMATION

Avista Corporation (Avista) operates the Cabinet Gorge Dam and Power Station which are located approximately 7.5 miles east of Clark Fork, Idaho. A small package plant provides secondary treatment of sanitary wastewater from restrooms used by employees and temporary contractors at the facility. Wastewater treatment consists of mechanical aeration followed by clarification, chlorination, and sand filtration. The system operates on a batch basis treating and discharging 60-80 gallon batches of sewage from the restrooms. The design capacity of the treatment system is 0.00120 million gallons per day (mgd). The average discharge from Outfall 001 is 0.000224 mgd and the maximum recent discharge has been 0.000336 mgd. A septic hauler removes 20-25 gallons of sludge per month for off-site disposal.

This is the initial NPDES permit issuance for the wastewater treatment plant discharge. A map has been included in Appendix A, which shows the approximate location of the facility and the discharge location.

## III. RECEIVING WATER

A. Receiving Water/Outfall Location

The treated effluent from the facility is discharged from Outfall 001 to a sump, which also receives large volumes of turbine pump seal water. The sump discharges to the Clark Fork River. Based on USGS stream flow data collected from 1928 through 1999 at gauging station 12392000 located about 2 miles downstream from the facility, the 7Q10 and 1Q10 flows are 4,549.77 cubic feet per second (cfs) and 1,690.95 cfs, respectively. The 1Q10 flow is the one day low flow with a return period of 10 years, and the 7Q10 is the seven day low flow with a return period of 10 years.

B. Water Quality Standards

A State's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria, and an anti-degradation policy. The use classification system designates the beneficial uses (such as cold water biota, contact recreation, etc.) that each is expected to achieve. The numeric and/or narrative water quality criteria are the criteria deemed necessary, by the State, to support the beneficial use classification of each water body. The anti-degradation policy represents a three tiered approach to maintain and protect various levels of water quality and uses.
water body

The Cabinet Gorge Dam to Mosquito Creek segment of the Clark Fork River is protected for domestic water supply, salmonid spawning, cold water biota, and primary contact recreation. It is also designed as a Special Resource Water. Under IDAPA 58.01.02.400.01b, "no existing wastewater treatment facility can increase its discharge of pollutants above the design capacity of its existing wastewater treatment facility to any water designated as a special resource water...if pollutants significant to the designated beneficial uses can or will result in a reduction of the ambient water quality of the receiving special water as measured immediately below the applicable mixing zone." Avista has not proposed to increase the discharge of pollutants above the design capacity of the existing wastewater treatment facility.

C. Water Quality Limited Segment

A water quality limited segment is any water body, or definable portion of a water body, where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards. The Pend Oreille Lake Subbasin, of which the Clark Fork River is a part, has been listed as water quality "threatened" due to increasing levels of nutrients in the Lake and the threat of metals pollution from historic mining in the Clark Fork River basin.

Section 303(d) of the Clean Water Act (CWA) requires States to develop a Total Maximum Daily Load (TMDL) management plan for water bodies determined to be water quality limited. A TMDL documents the amount of a pollutant a water body can assimilate without violating a State's water quality standards and allocates that load to known point sources and nonpoint sources.

In April 2000, the Idaho Department of Environmental Quality (IDEQ) submitted the *Clark Fork/Pend Oreille Subbasin Assessment/Total Daily Maximum Load* (Subbasin Assessment). The Subbasin Assessment indicates that Pend Oreille Lake watershed is currently meeting water quality standards. The State has decided, however, to develop a "preventive" TMDL to avoid future impairment of designated uses.

## IV. EFFLUENT LIMITATIONS

In general, the Clean Water Act requires that the effluent limits for a particular pollutant be the more stringent of either technology-based effluent limits or water quality-based limits. A technology-based effluent limit requires a minimum level of treatment for point sources based on currently available treatment technologies. A water quality-based effluent limit is designed to ensure that the water quality standards of a water body are being met.

At the 1Q10 flow, the Clark Fork River provides greater than 100,000,000:1 dilution of the discharge from Outfall 001. As indicated in the Subbasin Assessment, the Pend Oreille Lake Subbasin, including the Clark Fork River, is meeting water quality standards for the parameters discharged through Outfall 001. Therefore, the draft permit generally requires the permittee to comply with technology-based effluent limits for five-day biochemical oxygen demand ($BOD_5$), total suspended solids (TSS), total residual chlorine, and fecal coliform bacteria. The upper pH limit is based on technology-based effluent limits, however, the lower limit of 6.5 is based on the general criterion for aquatic life designations. The draft permit also includes escherichia coli (E.

coli) limits to comply with the State water quality standard for primary contact recreation. For more information on deriving technology- and water quality-based effluent limits see Appendix B.

The following summarizes the effluent limitations that are included in the draft permit.

1. The pH range shall be between 6.5 - 9.0 standard units.
2. 85% Removal Requirements for $BOD_5$ and TSS: For any month, the monthly average $BOD_5$ and TSS effluent concentrations shall not exceed 15 percent of the monthly average influent concentrations.
3. Table 1, below, presents the proposed average monthly, average weekly, and instantaneous maximum effluent limits for $BOD_5$, TSS, E. coli bacteria, fecal coliform bacteria, and total residual chlorine.

**TABLE 1: Monthly, Weekly and Daily Effluent Limitations**

| Parameters | Average Monthly Limit | Average Weekly Limit | Maximum Daily Limit |
|---|---|---|---|
| $BOD_5$ | 30 mg/L (0.3 lb/day) | 45 mg/L (0.5 lb/day) | --- |
| TSS | 30 mg/L (0.3 lb/day) | 45 mg/L (0.5 lb/day) | --- |
| Total Residual Chlorine | 0.5 mg/L | 0.75 mg/L | --- |
| Fecal Coliform | --- | 200/100 ml | --- |
| E. coli Bacteria | 126/100 ml | --- | 406/100 ml |

## V. SLUDGE REQUIREMENTS

As indicated in Section II, a septic hauler removes approximately 20-25 gallons of sludge per month from the wastewater treatment facility.

EPA Region 10 recently decided to separate wastewater and sludge permitting. Under the Clean Water Act (CWA), EPA has the authority to issue separate sludge-only permits for the purposes of regulating biosolids. EPA will issue a sludge-only permit to this facility at a later date, as appropriate.

Until future issuance of a sludge-only permit, any sludge management and disposal activities at the facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503 and any requirements of the State's biosolids program. The Part 503 regulations are self-implementing, meaning that permittees must comply with them whether or not a permit has been issued. Therefore, the CWA does not require the facility to have a permit prior to use or disposal of biosolids.

## VI. MONITORING REQUIREMENTS

Section 308 of the Clean Water Act and federal regulation 40 CFR 122.44(i) requires that monitoring be included in permits to determine compliance with effluent limitations. Monitoring may also be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality. The Permittee is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports to EPA. Table 2 presents the proposed effluent monitoring requirements based on the minimum sampling necessary to adequately monitor the facility's performance.

**TABLE 2: Treatment Plant Monitoring Requirements**

| Parameter | Sample Location | Sample Frequency | Sample Type |
|---|---|---|---|
| Flow, mgd | Effluent | Continuous | recording |
| $BOD_5$, mg/L | Influent and Effluent | 1/month | grab |
| TSS, mg/L | Influent and Effluent | 1/month | grab |
| pH, standard units | Effluent | 1/day | grab |
| Total Residual Chlorine, mg/L | Effluent | 1/day | grab |
| Fecal Coliform, colonies/100 ml | Effluent | 1/month | grab |
| E. Coli Bacteria, colonies/100 ml | Effluent | 5/month | grab |
| Total Ammonia (as N) | Effluent | 1/month | grab |
| Total Kjeldahl Nitrogen | Effluent | 1/month | grab |
| Nitrate (as N) | Effluent | 1/month | grab |
| Nitrite (as N) | Effluent | 1/month | grab |
| Total Phosphorous (as P) | Effluent | 1/month | grab |
| Note: Nutrient monitoring requirements for total ammonia, total kjeldahl nitrogen, nitrate, nitrite, and total phosphorous apply for the first 12 months after the effective date of the permit. | | | |

## VII. OTHER PERMIT CONDITIONS

A. Quality Assurance Plan

The federal regulation at 40 CFR 122.41(e) requires the Permittee to develop and submit a Quality Assurance Plan to ensure that the monitoring data submitted is accurate and to explain data anomalies if they occur. The Permittee is required to submit a Quality Assurance Plan within 60 days of the effective date of the draft permit. The Quality Assurance Plan shall consist of standard operating procedures the Permittee must follow for collecting, handling, storing and shipping samples, laboratory analysis, and data reporting.

B. Nutrient TMDL Reopener Clause

As indicated in Section III.C., the State is in the process of developing a preventive TMDL for nutrients in the Pend Oreille Lake watershed. The draft permit provides for nutrient monitoring at Outfall 001 and includes a specific reopener clause to incorporate any applicable nutrient wasteload allocations when the TMDL is finalized.

C. Additional Permit Provisions

Sections II, III, and IV of the draft permit contain standard regulatory language that must be included in all NPDES permits. Because they are regulations, they cannot be challenged in the context of an NPDES permit action. The standard regulatory language covers requirements such as monitoring, recording, reporting requirements, compliance responsibilities, and other general requirements.

## VIII. OTHER LEGAL REQUIREMENTS

A. Endangered Species Act

The Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service if their actions could adversely affect any threatened or endangered species. EPA has determined that issuance of this permit will not affect any of the endangered species in the vicinity of the discharge. See Appendix C for further details.

B. State Certification

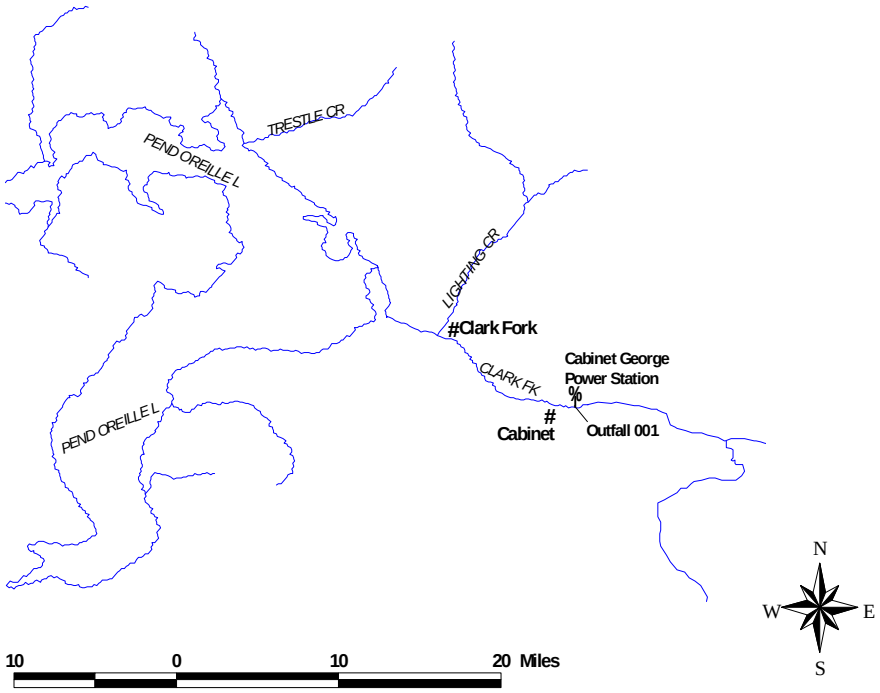
Section 401 of the Clean Water Act requires EPA to seek State certification before issuing a final permit. As a result of the certification, the State may require more stringent permit conditions or additional monitoring requirements to ensure that the permit complies with water quality standards.

C. Permit Expiration

This permit will expire five years from the effective date of the permit.

**APPENDIX A**

# Cabinet George Power Station and Outfall 001 Locations



## APPENDIX B
### Basis for Effluent Limitations

**Technology-based Effluent Limitations**

The Cabinet Gorge Power Station wastewater treatment facility is a non-municipal discharger referred to as a Treatment Works Treating Domestic Sewage (TWTDS). National performance based effluent limitations for TWTDS discharges have not been promulgated by EPA. In these cases, effluent limitations are developed using Best Professional Judgement (BPJ).

The authority for BPJ is contained in Section 402(a)(1) of the CWA. The NPDES regulations at 40 CFR § 125.3 define what factors must be considered when establishing BPJ-based conditions in a permit. In this case, BPJ-based limits have been incorporated into the draft permit based on the secondary treatment standards for municipal wastewater treatment plants.

Section 301 of the CWA established a required performance level, referred to as "secondary treatment," that all publicly owned treatment works (POTWs) were required to meet by July 1, 1977. EPA developed "secondary treatment" regulations which are specified in 40 CFR Part 133. These technology-based effluent limits identify the minimum level of effluent quality attainable by secondary treatment in terms of five-day biochemical oxygen demand ($BOD_5$), total suspended solids (TSS), and pH.

The technology-based effluent limits applicable to this facility are as follows:

1. 5-day Biochemical Oxygen Demand ($BOD_5$) and Total Suspended Solids (TSS), concentration based limits:

   | $BOD_5$ and TSS | |
   |---|---|
   | Average Monthly Limit = | 30 mg/L |
   | Average Weekly Limit = | 45 mg/L |

2. Consistent with the secondary treatment regulations, the draft permit provides a requirement for 85 percent removal of influent $BOD_5$ and TSS loadings.

3. 5-day Biochemical Oxygen Demand ($BOD_5$) and Total Suspended Solids (TSS), mass based limits: Federal regulations at (40 CFR § 122.45 (f)) require $BOD_5$ and TSS limitations to be expressed as mass based limits. The loadings are calculated as follows: concentration X design flow X 8.34.

   $BOD_5$ and TSS loading, monthly avg. = 30 mg/L X 0.0012 mgd X 8.34 = 0.3 lb/day
   $BOD_5$ and TSS loading, weekly avg. = 45 mg/L X 0.0012 mgd X 8.34 = 0.5 lb/day

3. The pH range shall be between 6.0 - 9.0 standard units.

4. The Idaho *Water Quality Standards and Wastewater Treatment Requirements* (IDAPA16.01.02.420.02.b) require that fecal coliform concentrations in treated effluent not exceed 200 colonies/100 mL.

5. EPA Region 10 policy is to establish limits for total residual chlorine in discharges from facilities that use chlorine disinfection. The average monthly total residual chlorine limit for Outfall 001 is 0.5 mg/L. Based on similar systems, maintaining this level over a minimum of 15 minutes will

provide adequate disinfection. The average weekly limit for total residual chlorine has been established as 1.5 times the average monthly limit.

**Water Quality-based Effluent Limitations**

Idaho Water Quality Standards require a pH range of 6.5 - 9.5 s.u. EPA has assumed that a mixing zone will not be provided for pH. Therefore, the lower pH limit in the draft permit is the applicable cold water biota criteria of 6.5.

EPA has also assumed no mixing zone will be granted for compliance with the Idaho Water Quality Standard for E. coli for protection of primary contact recreation use in the Clark Fork River. Therefore, the draft permit requires the discharge from Outfall 001 to meet the E. coli water quality standard of 126/100 ml (average monthly) and 406/100 ml (daily maximum).

While the Clark Fork River is currently meeting water quality standards, IDEQ is in the process of developing a preventive nutrient TMDL for the Subbasin. Therefore, the draft permit includes monthly nutrient monitoring requirements for the first 12 months after the effective date of the permit. The draft also includes a specific reopener clause to allow for incorporation of wasteload allocations when a TMDL is finalized.

The Idaho Water Quality Standards require surface waters of the state to be free from floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions that may impair designated beneficial uses. Therefore, a narrative condition is included in the draft permit that states there must be no discharge of floating solids or visible foam or oil and grease other than trace amounts.

## APPENDIX C
## ENDANGERED SPECIES ACT

Section 7 of the Endangered Species Act (ESA) requires federal agencies to request a consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service regarding potential effects an action may have on listed endangered species.

In a letter dated July 24, 2000, the U.S. Fish and Wildlife Service identified the gray wolf as being a federally-listed endangered species and the bald eagle and bull trout as federally listed threatened species in the vicinity of Avista's discharge. The westslope cutthroat trout was also identified as a species of concern. The National Oceanic and Atmospheric Administration, National Marine Fisheries Service did not identify any additional species within the area of the discharge.

EPA has determined that the requirements contained in the draft permit will not have an impact on the gray wolf, bald eagle, bull trout, or westslope cutthroat trout. Hunting and habitat destruction unrelated to wastewater treatment facility operations are the primary causes of the gray wolf's decline. Specific threats to bald eagles identified by the U.S. Fish and Wildlife Service include logging, overgrazing of cottonwood saplings, agricultural development, lowered food supply, pesticide contamination, hydroelectric dams, shooting, recreation-related human disturbance, use of strychnine, and possible lead poisoning. None of these threats are related to the discharge from the wastewater treatment facility. For the bulltrout and westslope cutthroat trout, the draft permit specifically ensures compliance with Idaho Water Quality Standards. It also provides for nutrient monitoring and a reopener for future nutrient wasteload allocations consistent with the State's efforts to protect water quality throughout the Pend Oreille Lake watershed.